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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
VAN DOREN, BETH	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/806,702	AZVINE ET AL.	
	Examiner	Art Unit	
	Beth Van Doren	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a non-final office action in response to the after-final communications received on 06/22/06. Based on these communications, prosecution has been reopened. Claims 1-26 are pending and addressed below.

Response to Arguments

2. Applicant's arguments, see after-final communications filed 06/22/2006, with respect to the final rejection dated 12/22/2005 have been fully considered and are persuasive. These rejections have been withdrawn. New art rejections are set forth below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 14, the preamble of the claim recites "a method of operating a data processing apparatus". This preamble renders the scope of the body of the claim indefinite since it is unclear as to who or what is performing each of the steps. The body of the claim recites, for example, "inputting a fuzzy logic statement", "converting the fuzzy logic statement", and "storing event identifying data". It seems that some of these steps are implemented by computer and some of these steps are implemented by a human. However, the preamble implies that each step is presented from the same stand point (i.e. all are machine implemented or all are human implemented). Clarification is required.

Claims 15-22 depend from claim 14 and contain the same deficiencies.

Claim 22 further recites a method in which "either or both of: (i) the processable event and (ii) the temporal processable information [...]". It is unclear as to what occurs if (i) only is selected as "in which the processable event" does not appear to have any functionality. Clarification is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-18 and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Levinson (U.S. 6,047,260).

As per claim 1, Levinson teaches an apparatus for identifying a time with respect to an event in a scheduling system, the apparatus comprising:

(i) input means (See column 7, lines 1-5 and 15-30) for receiving:

(a) event identifying data comprising an identifier for a processable event (See column 3, lines 64-67, column 4, lines 25-50, column 6, lines 35-50, column 9, lines 45-65, wherein information concerning an event is input and identified in the system. See also column 8, lines 40-60, which discloses identified scripts input into the system); and

(b) a fuzzy logic statement associated with the processable event, the fuzzy logic statement identifying a duration and a start time thereof (See column 4, lines 32-50 and column

6, lines 35-50, wherein information concerning duration and start time are associated with the processable event. See column 3, line 64-column 4, line 10, column 6, lines 10-25 and 55-65, column 8, lines 1-6, and column 9, lines 50-65, wherein the computer uses approximate rather than precisely deduced logic to arrange tasks to best meet the needs of the user);

(ii) means for storing (See column 6, line 65-column 7, line 15):

(a) event identifying data (See column 6, line 65-column 7, line 15, column 8, lines 1-15 and 61-67, which discloses storing the information of the system. See column 3, lines 64-67, column 4, lines 25-50, column 6, lines 35-50, column 9, lines 45-65, which discloses event data. See also column 8, lines 40-60, which discloses a library of scripts);

(b) temporal preference information associated with said event identifying data (See column 6, line 65-column 7, line 15, column 8, lines 1-15 and 61-67, which discloses storing the information of the system. See column 4, lines 32-50 and column 6, lines 1-15 and 35-60, wherein preferences concerning priority, duration, and start time are associated with the processable event);

(iii) means arranged to access a temporal schedule which stores associated allocated times in respect of at least one previously allocated event (See column 5, lines 66-column 6, line 15 and lines 50-65, wherein a schedule is stored and accessed in the system. See also column 9, line 45-column 10, line 10 and lines 55-67, wherein the schedule once set is stored and can be accessed and edited when changes must be made);

(iv) processing means for (See column 6, line 65-column 7, line 15, column 8, lines 40-55): (a) applying a predetermined function to convert a received fuzzy logic statement into

temporal preference information (See column 3, line 64-column 4, line 10, column 6, lines 10-25 and 55-65, column 8, lines 1-6, and column 9, lines 50-65); and

(b) reviewing temporal preference information corresponding to the at least one previously allocated event, together with the temporal preference information for the processable event in order to identify an available time for the processable event in the temporal schedule that satisfies the temporal preference information corresponding to both of the at least one previously allocated event and of the processable event (See column 3, line 64-column 4, line 10, column 6, lines 10-25 and 55-65, column 8, lines 1-6, and column 9, lines 50-65, wherein a schedule is made based on the data associated with a processable event and preferences associated with the event. See also column 4, lines 32-50 and column 6, lines 1-15 and 35-60, wherein preferences concerning priority, duration, and start time are associated with the processable event. Finally see column 9, line 45-column 10, line 10 and lines 55-67, wherein the schedule once set is stored and can be accessed and edited when changes must be made).

As per claim 2, Levinson teaches wherein the fuzzy logic statement for a processable event describes both or either of:

(i) a preferred start time for the processable event and (ii) a preferred duration for the processable event (See column 6, lines 10-25 and 55-65, column 9, lines 50-65, column 10, lines 1-25, wherein tasks can have preferred start times or durations)

As per claim 3, Levinson discloses wherein temporal preference information for a processable event comprises preference values associated with different respective start times (See column 6, lines 10-25 and 55-65, column 9, lines 50-65, column 10, lines 1-25, wherein priorities and rewards are associated with start times and when the event occurs).

As per claim 4, Levinson teaches wherein the fuzzy logic statement for a processable event describes both or either of (i) a period in a single day or (ii) a period that extends over a plurality of days (See column 6, lines 10-25 and 55-65, column 9, lines 50-65, column 10, lines 1-25, wherein the event must occur during a predetermined period of time, which is within one day or within multiple days)

As per claim 5, Levinson discloses wherein the apparatus further comprises means for monitoring the temporal schedule and alerting means for outputting an alert signal in the event that available time in the temporal schedule conflicts with said temporal preference information (See column 8, lines 7-25 and 59-67, column 9, lines 45-67, column 10, lines 1-15, column 13, lines 30-45, wherein the schedule is monitored. Alarms sound when needed by the system).

As per claim 6, Levinson teaches wherein start times and durations are identified for two or more processable events (See column 6, lines 10-25 and 55-65, column 9, lines 50-65, column 10, lines 1-25, wherein start times and durations are specified for multiple events).

As per claim 7, Levinson teaches wherein the input means further receives constraint information describing constraints between at least two events (See column 10, lines 10-40, and column 11, line 58-column 12, line 10, wherein limitations concerning the scheduling are input and known to the system).

As per claim 8, Levinson discloses wherein at least two events comprise at least one processable event (See column 6, lines 10-15 and 35-60, column 9, lines 50-65, wherein the system has floating tasks and fixed tasks, wherein the floating tasks are processable).

As per claim 9, Levinson teaches wherein the means for storing is arranged to store constraint information (See column 6, line 65-column 7, line 15, column 10, lines 10-40, and

column 11, line 58-column 12, line 10, wherein the system operates based on stored information, such as priorities and limitations).

As per claim 10, Levinson wherein said processing means reviews said stored constraint information together with the constraint information received in respect of the processable event, in order to identify an available time for the processable event that satisfies both types of constraint information (See column 6, lines 1-20 and 50-63, and column 10, lines 1-20, which discloses a scoring function that identifies the schedule limitations and priorities).

As per claim 11, Levinson teaches wherein the processable event is a meeting (See column 12, lines 5-15, and column 14, lines 1-20, wherein the event is a meeting).

As per claim 12, Levinson teaches scheduling a meeting between two entities (See column 12, lines 5-15, and column 14, lines 1-20, wherein the event is a meeting), including a plurality of apparatuses according to claim 1 (see above, wherein multiple different users each would use the current apparatus).

As per claim 13, Levinson teaches wherein the input means is: (i) a graphical user interface operable to receive fuzzy logic statements via the keyboard (See column 3, lines 15-32, column 6, line 65-column 7, line 10 and lines 15-35, which discloses a display screen with which the user interacts and a keyboard).

Claim 14 recites equivalent limitations to claim 1 above and is therefore rejected using the same art and rationale as set forth above.

As per claim 15, Levinson discloses temporal preference information associated with the processable event includes a plurality of durations, and preference values as a function of those durations, when the fuzzy logic statement describes the duration of the processable event (See

column 3, line 64-column 4, line 10, wherein a plurality of events are scheduled. These events are processable and each have a specified, different duration. See column 4, lines 32-50, column 6, lines 10-25 and 55-65, column 9, lines 50-65, column 10, lines 1-25. See column 6, lines 10-25 and 55-65, column 8, lines 1-6, and column 9, lines 50-65, wherein the computer uses approximate rather than precisely deduced logic to arrange tasks to best meet the needs of the user).

As per claim 16, Levinson teachs temporal preference information includes a plurality of different start times, and preference values as a function of those start times, when the fuzzy logic statement describes the start time of an event (See column 3, line 64-column 4, line 10, wherein a plurality of events are scheduled. These events are processable and each have a specified, different start time. See column 4, lines 32-50, column 6, lines 10-25 and 55-65, column 9, lines 50-65, column 10, lines 1-25. See column 6, lines 10-25 and 55-65, column 8, lines 1-6, and column 9, lines 50-65, wherein the computer uses approximate rather than precisely deduced logic to arrange tasks to best meet the needs of the user).

As per claim 17, Levinson teaches wherein the reviewing step (vi) includes the steps of:

(a) removing any event stored in the temporal schedule from the temporal schedule (See column 10, lines 1-10, column 11, lines 10-25, column 15, lines 15-23, wherein an event may be removed/deleted);

(b) allocating a start time and duration to the processable event, which allocated start time and duration maximize the preferences corresponding to the processable event (See column 4, lines 1-30, column 9, lines 50-65, column 13, lines 50-60, column 14, lines 34-44, wherein the tasks are maximized for performance);

(c) allocating start times and durations to the stored events until all of the stored events have been re-entered into the temporal schedule (See column 9, line 45-column 10, line 10 and lines 55-67, wherein the schedule once set is stored and can be accessed and edited when changes must be made);

(d) quantifying preference satisfaction, which preference satisfaction provides a measure of how well the preferences associated with each of the stored events have been satisfied in the allocation of step (c) (See column 4, lines 10-30 and column 6, lines 50-65, wherein preferences are used and a simulation occurs to pick the best schedule based on preferences); and

(e) repeating steps (c) and (d) until the preference satisfactions have been maximized for all events (See column 6, lines 50-65, wherein simulation is used).

As per claim 18, Levinson teaches in which the reviewing step (vi) includes the steps of:

(a) removing any event stored in the temporal schedule from the temporal schedule (See column 10, lines 1-10, column 11, lines 10-25, column 15, lines 15-23, wherein an event may be removed/deleted);

(b) organizing the processable event and the stored events into an order in accordance with temporal preference information relating to the processable event and to stored temporal preference information (See column 9, line 45-column 10, line 10 and lines 55-67, wherein the schedule once set is stored and can be accessed and edited when changes must be made. See column 4, lines 1-30, column 9, lines 50-65, column 13, lines 50-60, column 14, lines 34-44, wherein the tasks are sequenced); and

(c) allocating start times and durations to the stored and processable events in accordance with the order (See column 4, lines 1-30, column 9, lines 50-65, column 13, lines 50-60, column 14, lines 34-44, wherein start times are allocated).

As per claim 23, Levinson teaches wherein a plurality of autonomous systems help the user with certain computer based tasks (See column 7, lines 62-67, and column 8, lines 45-60, column 9, lines 45-65, wherein different systems within the larger system work autonomously to plan for the user and to communicate with the user).

As per claim 24, Levinson teaches wherein the intelligent autonomous systems include at least some of a diary assistant, an email assistant, a telephone assistant and a web assistant (See column 7, lines 26-36, column 10, lines 10-20, column 12, lines 5-15, column 13, lines 30-45, wherein different systems are present within the larger system, wherein one system autonomously alarms the user, such as by email, and wherein one system autonomously operates to track the tasks to be performed of the user).

As per claim 25, Levinson teaches means responsive to an input signal indicative of a state of mind of a user (See column 4, lines 35-41, column 8, lines 15-33, column 13, lines 43-57, which discloses the state of mind of the user).

Claim 26 recites equivalent limitations to claim 1 above and is therefore rejected using the same art and rationale as set forth above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levinson (U.S. 6,047,260).

As per claim 19, Levinson discloses wherein, when the temporal preference information for a processable event describes an end time and a duration (See column 4, lines 15-25, column 8, lines 10-20, and column 10, lines 5-25, wherein events have definitive end times by which they must occur as well as durations) for the processable event, the reviewing step (vi) includes the steps of:

identifying periods that are unassigned to events stored in the temporal schedule when all of the events have been allocated start times (See column 4, lines 41-55, column 6, lines 5-15 and 35-50, column 9, lines 45-65, column 10, lines 5-25 and 30-40, wherein events are assigned to open periods based on other events' start times);

comparing the identified periods with the duration of the processable event (See column 3, line 64-column 4, line 10, column 6, lines 10-25 and 55-65, column 8, lines 1-6, and column 9, lines 50-65, wherein a schedule is made based on the data associated with a processable event and preferences associated with the event); and

identifying a conflict in the schedule and providing cues (see column 11, lines 55-column 12, line 20, column 13, lines 15-40, and column 18, lines 45-65, wherein the system is adjusted and changed for conflicts and when more time is needed).

Levinson teaches a system that is used to plan a plurality of tasks based on preferences and priorities associated with a task. The tasks are scheduled based on the time available to do the task, the duration of the task, and its priority. Further, the system of Levinson provides the

user with cues and the ability to override the system when an unexpected event occurs (thus the current time allocated is less than currently needed). It is old and well known in scheduling to notify a user of a scheduling conflict when the schedule cannot be executed as planned. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a notification to the user if the duration of the unassigned periods are less than the duration of the processable event in order to more efficiently produce a schedule that meets the criteria and priorities associated with the tasks. See column 6, lines 5-20, column 10, lines 1-20.

As per claim 20, Levinson discloses wherein the processable event is a meeting (See column 12, lines 5-15, and column 14, lines 1-20, wherein the event is a meeting. See column 8, lines 1-28, and column 10, lines 10-25, which disclose floating tasks and the use of the system by businessmen) between a plurality of entities, the method comprising the steps of:

(a) sending a first preferred time period from the temporal schedule to a further temporal schedule (See column 4, lines 32-50, column 6, lines 1-15 and 35-60, column 8, lines 1-28, and column 10, lines 10-25, wherein a first user has a preferred time period);

(c) allocate a time to the meeting that satisfies preferences of the temporal preferences of temporal preference information relating to the further temporal schedule and the temporal schedule (See column 4, lines 32-50, column 6, lines 1-15 and 35-60, column 8, lines 1-28, and column 10, lines 10-25, wherein a first user's floating task is assigned to a time period based on preferences and outside limitations).

However, Levinson does not expressly disclose that the user is scheduling the meeting with an outside user, where the outside user has also entered preference information.

Levinson teaches a system that is used to plan a plurality of tasks based on preferences and priorities associated with a task. Levinson discloses the use of the system by a businessman and that the system is used to schedule meetings. Further, the system of Levinson is capable of being used by a plurality of individuals. It is well known in computing for multiple users to user the same software package in order to more efficiently communicate with each other, such as to schedule a meeting efficiently. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include at least two users in the meeting of Levinson, and include that both users would have constraints on scheduling the meeting taught by Levinson in order to more efficiently schedule the floating task of the meeting in the most efficient and preferential manner.

As per claim 21, Levinson teaches wherein the preferred time period is any one of a week, a day or an hour (See column 5, lines 65-67, column 6, lines 18-35, which at least discloses a day).

As per claim 22, Levinson wherein either or both of:

(i) the processable event (See column 6, lines 10-15 and 35-60, column 9, lines 50-65, wherein the system has floating tasks and fixed tasks, wherein the floating tasks are processable).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Slotznick (U.S. 6,108,640) discloses fuzzy logic and expert system with intelligent agents and using these in association with a calendar.

Chi (U.S. 5,751,580) teaches fuzzy logic methods to schedule production using criteria such as priority.

Schloss et al. (U.S. 5,692,125) teaches scheduling events when the exact timing of the events is unknown.

Collins et al. (U.S. 5,623,404) discloses wherein schedules are produced by the system based on preferences.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

bvd
July 21, 2006

Beth Van Doren
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